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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

24 September 1976

MEMORANDUM FOR: The Director of Central Intelligence

FROM : William W. Wells
Deputy Director for Operations

SUBJECT : MILITARY THOUGHT (USSR): Characteristic
Features of Aerospace Operations in the
Initial Period of War

1. The enclosed Intelligence Information Special Report is part of a series now in preparation based on the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". This article is a discussion of prospective US and British aerospace operations, which may include the employment of ICBM's, medium-range missiles, and strategic aviation with satellite support, as well as the operations of missile submarines and carrier strike forces. The capabilities and objectives of these, and also of tactical air forces and operational cruise missiles, are analyzed and possible courses of action described. This article appeared in Issue No. 4 (65) for 1962.

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2. Because the source of this report is extremely sensitive, this document should be handled on a strict need-to-know basis within recipient agencies. For ease of reference, reports from this publication have been assigned

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Intelligence Information Special Report

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COUNTRY USSR

DATE OF
INFO. Mid-1962

DATE
24 September 1976

SUBJECT

MILITARY THOUGHT (USSR): Characteristic Features of Aerospace Operations in the Initial Period of War

SOURCE Documentary

Summary:

The following report is a translation from Russian of an article which appeared in Issue No. 4 (65) for 1962 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". The author of this article is General-Mayor of Aviation A. Kuvinov. This article is a discussion of prospective US and British aerospace operations, which may include the employment of ICBM's, medium-range missiles, and strategic aviation with satellite support, as well as the operations of missile submarines and carrier strike forces. The capabilities and objectives of these, and also of tactical air forces and operational cruise missiles, are analyzed and possible courses of action described. The article concludes with a brief discussion of current trends in the development of aerospace operations and their significance in a future war.

End of Summary

Comment:

After 1962 the SECRET version of Military Thought was published three times annually and was distributed down to the level of division commander. It reportedly ceased publication at the end of 1970.

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Characteristic Features of Aerospace Operations
in the Initial Period of War
(According to Foreign Views)

by
General-Mayor of Aviation A. Kuvinov

In working out the theory of operations of aerospace forces, the military commands of the US and Great Britain at the present time subdivide them into the following types: missile operations of intercontinental ballistic missiles, missile operations of medium-range ballistic missiles, strategic air operations, operations of missile submarines, operations of carrier strike large units, air defense operations, antimissile defense operations, and operations of tactical air forces and ground forces in a theater of military operations.

Although these operations are carried out by different means and have their own specific features, they are all regarded as integral parts of a single plan for a global nuclear offensive and directed towards achieving the overall objective.

"Aerospace operations of all types," indicates the US Air Force Manual, "are interconnected and they are integral parts of overall strategy; and all types of aerospace forces -- from the viewpoint of capability -- are interdependent. Therefore, their actions must be appropriately coordinated."*

According to the views of the military commands of the US and Great Britain, the missile operations of intercontinental missiles will be characterized by their rapidity in time and high effectiveness in results. One of the indications of the rapidity of missile operations is considered to be the capability of these missiles to cover the distance from the site of their launching to the target in 25 to 30 minutes. Among the indices of the effectiveness of missile operations the Americans usually class the yields of missile warheads capable of producing destruction over a large area.

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*Basic Doctrine of the US Air Force (Aerospace Doctrine). US Air Force Manual, AFM 1-2, 1 December 1959. Publishing House of the Main Intelligence Directorate of the General Staff, 1960, p. 19.

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The high effectiveness of missile strikes is determined by their tactical-technical specifications. The accuracy of intercontinental missiles is continually increasing. Thus, the value of the average probable error is already now equal to 0.0004 of the firing distance. With the use of megaton nuclear warheads and with such a probable error, the majority of the important stationary targets will, in the opinion of American specialists, be reliably destroyed. They consider, for example, that if 263 thermonuclear strikes are carried out on the US with an average TNT equivalent of about five million tons each, the 132 major military targets and many different industrial complexes, as well as 71 major cities, will be destroyed.

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The most important requirement placed upon missile units and large units is that their combat readiness for delivery of the first nuclear strikes be as high as possible. For instance, a 15-minute combat readiness time is established for intercontinental ballistic missile squadrons.

Missile subunits can carry out both salvo and single missile launches. The most typical method of employing intercontinental ballistic missiles in missile operations is considered to be a massed strike by simultaneous salvos of the maximum number of missiles in conjunction with individual launches.

What are the capabilities of missile units in this respect?

Atlas-E, Atlas-F, and Titan-2 ICBM squadrons are capable of conducting salvo firing of all nine missiles available in their armament; Atlas-D squadrons can conduct salvo firing of three missiles with an interval of up to 15 minutes between salvos; Titan-1 squadrons can conduct a salvo of six missiles and after 10 to 12 minutes a second salvo of three missiles.

ICBM squadrons in whose armament there are Minuteman missiles will, according to the calculations of American specialists, be able to conduct salvo firing with five missiles with an interval of three to five minutes between salvos. Consequently, the 50 missiles available in the armament of such a squadron, with salvo firing, can be launched within 40 to 50 minutes after the moment of the first launch.

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Thus, already in the initial stage, missile operations will be characterized by high volume and intensity.

From the data cited, it can be seen that the reserves of intercontinental ballistic missiles -- if additional units of fire are not produced (according to known data, the Americans are producing one unit of fire so far) -- may be expended within the first two hours after the start of a nuclear offensive.

Missile operations of intercontinental ballistic missiles can begin in extremely short times upon declaration of a combat alert. This is favored by the high degree of combat readiness, the availability of reserves of missiles at the launching positions, and also by the fact that the targets for every missile are predetermined and that a final reconnaissance of them before the delivery of strikes is considered inadvisable.

When conducting missile operations, the Americans, taking into account the possibility of an antimissile defense, contemplate maneuvering the trajectories of missiles for purposes of hitting important targets or reinforcing the actions of strategic aviation and naval forces in separate areas in support of the accomplishment of the tasks of the nuclear offensive. The main axes of the employment of intercontinental ballistic missiles, according to the US Air Force Chief of Staff, General LeMay, will pass through the aerospace regions of the northern strategic axis.

Becoming an important factor in the support of missile operations of intercontinental ballistic missiles in the next three to five years will be the military satellite systems, for instance, reconnaissance, geodesic, communications, weather, and superlong-range detection satellites.

Unlike the missile operations of intercontinental missiles, operations of medium-range missiles are planned to be carried out from the territory of countries allied with the US (Great Britain, Italy, and Turkey and subsequently also of the other states of the British-American bloc). The squadrons of Thor and Jupiter missiles belonging to the air forces of these countries can use nuclear warheads only with the consent of the US command. Therefore, the planning of operations of medium-range missiles will apparently be done on a coalition basis but under the

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direction of the Americans. Besides that, these operations must be most closely coordinated with the operations of the armed forces of the theater of war and primarily with the operations of the nuclear offensive in a theater of military operations.

The objective of the operations of medium-range missiles will be participation with the other types of aerospace forces in the destruction of the nuclear potential of a country of the opposing coalition. The targets at which medium-range ballistic missiles will be primarily aimed are the operational and strategic missile bases located within range, nuclear warhead depots, airfields of long range aviation, naval bases and ports of basing of nuclear weapons carrying ships, as well as important industrial centers, air defense centers, and large strategic reserves located near the theaters of military operations.

The depth of missile operations of medium-range missiles, with the location of their launching positions at a distance of 1,000 kilometers or more from the borders of the countries of the socialist camp, does not exceed 2,000 to 2,500 kilometers. Ballistic missiles sort of directly build up the efforts of the aerospace forces of the theater of military operations, which operate to a depth of 1,000 to 1,200 kilometers. Here it should be taken into consideration that the distribution of actions by depth is to a certain extent arbitrary. Targets against which the use of medium-range ballistic missiles is planned can also be located in the zone of actions of the means of the theater of military operations. Besides that, neutralization of a number of targets at a distance of 1,000 kilometers beyond the zone can also have a direct effect on the success of accomplishing the tasks of the nuclear offensive in the theater of military operations, in particular on the fulfillment of the task of disrupting the strategic deployment of the armed forces and the approach of the strategic reserves from the interior of the country. The close connection between these operations is also confirmed by such exercises of the allied armed forces of NATO as FALLEX-60 and CHECKMATE.

Missile operations of medium-range ballistic missiles, like those of intercontinental ballistic missiles, will be characterized by great activeness and rapidity. The combat readiness of missile units is high. They are on 15-minute readiness, and the number of launchers and control means permits

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employing the whole unit of fire in one salvo. Advance designation of a main target and an alternate target for each missile affords the possibility of employing them from the very beginning of a nuclear offensive. Switching missiles from the main target to the alternate target is done in 15 minutes. In case of changing the main target and the alternate target, up to two hours is spent to produce the appropriate calculations. The accuracy of firing ballistic missiles has grown considerably, and at the present time the average probable error for Thor missiles is 0.04 percent of the firing distance, and for Jupiter missiles, 0.06 percent. For instance, in firing 3,000 kilometers, the average probable error for the Thor missiles equals 1.2 kilometers, and for the Jupiter missiles, 1.8 kilometers.

Operations of medium-range missiles in the near future will be supported by the same military satellite systems as intercontinental missiles.

Of all the possible operations of aerospace forces, strategic air operations are at the present time the foundation of the nuclear offensive. The American and British military commands plan to conduct them with heavy and medium bombers available in the Strategic Air Command of the US and the Bomber Command of Great Britain. True, the forces of Great Britain are very insignificant and amount to only about seven percent of the strategic air forces of the US.

The objective of a strategic air operation will be the destruction of the military-industrial and primarily the nuclear potential of the Soviet Union and the countries of the socialist camp, as well as ensuring for the US and British commands seizure of the strategic initiative.

The main targets of destruction for strategic aviation will be the same as for the medium-range missiles.

Strategic air operations of the nuclear offensive of the initial period of war will, from the very beginning, acquire a global scale and be carried out with maximum intensity. These operations, from the point of view of the grouping of forces, may be planned according to several variants.

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As shown by the experience of the exercises of recent years of the US Strategic Air Command, STAR BURST, CHESS GAME, STAR PLAY, and the maneuvers of the allied armed forces of NATO, FALLEX-60 and others, two variants of the conduct of operations may be most typical.

First -- delivery of the initial strikes with strategic aviation in the everyday grouping of forces, i.e., with the main forces (about 55 percent) from US territory, in cooperation with the strategic air forces stationed in the European and Pacific zones.

Second -- delivery of the initial strikes by strategic aviation with the execution of a preliminary regrouping of the forces of medium bomber aviation to the air bases of the European and Pacific zones.

It is known that the US in two or three days can create air groupings in these zones with a strength of 750 aircraft, which, considering the strategic aviation of Great Britain, will constitute up to 43 percent of the forces of strategic aviation.

The first variant of conducting strategic air operations conforms to the principle of surprise, since it hinders detection of the intentions of the US command; however, it limits the possibilities of employing the largest number of aircraft as a result of the great distance of strike targets from the places of basing (7,000 to 10,000 kilometers) and the difficulties in refueling aircraft in the air. The experience of numerous exercises shows that the American military command is devoting much attention to the first variant.

The second variant is more advantageous from the point of view of the possibility of maximum allocation of forces to deliver the initial strike, but conforms less to the principle of surprise. The concentration of considerable forces of strategic aviation in the European and Pacific zones (no matter what pretext it is done under) can be detected by strategic reconnaissance.

Employing strategic aviation according to the second variant is most probable under conditions of a sharp growth in international tension or of escalation of a local war into a

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general war. In this situation a number of overt measures can be carried out to increase the combat readiness of the armed forces and regroup forces, as was done by the NATO countries in the fall of 1961 in connection with proposals of the Soviet government about concluding a peace treaty with Germany.

Strategic air operations, regardless of what variant they are conducted by, will take on the character of intercontinental operations and shuttle operations, as well as of operations carried out from forward air bases. In this connection, the Americans consider that prolonged use of forward air bases under the conditions of a nuclear war is hardly possible. However, if the American and British military commands are deprived of the possibility of using these bases on the very first day of the war, then on subsequent days they will be forced to go over to conducting only intercontinental air operations, which will drastically reduce the intensity of combat actions.

Strategic air operations are planned to be conducted with the exploitation of all air axes, northern, northwestern, western, southwestern, southern, far eastern, and northeastern. The most important of these are the northern, northwestern, western, southwestern, and northeastern axes, on which over 90 percent of the forces may be used.

Based on the experience of exercises of the US Strategic Air Command, the operational disposition of strategic aviation during a nuclear offensive may be as follows:

- in the first 24 hours, a raid by the main forces in two or three echelons of aircraft with a duration of actions of two to four hours and intervals of four to six hours between raids;
- in the second 24 hours, strategic bombers operating in echelons of single aircraft or small groups will deliver strikes on new targets and repeat strikes on those targets not destroyed the first day;
- in the third 24 hours, continuation of actions in echelons. The duration of continuous actions in echelons may reach approximately 50 hours.

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The first day, on which it is contemplated to use up to 70 percent of the strategic aviation deployed in the continental US, 100 percent of the aviation deployed at forward air bases, and up to 60 percent of the nuclear warheads issued for the nuclear offensive, is regarded as the most intense.

The combat capabilities of the strategic aviation of the US and Great Britain, stemming from the tactical-technical specifications of the aircraft, the areas of basing, and the means of support, permit making certain generalizations on the nature of its employment during a nuclear offensive. Heavy bomber aviation (B-52 aircraft), exploiting its single-squadron basing and the availability of considerable refueling means (two tankers for three bombers), can be fully employed on the very first day of the offensive, i.e., one sortie can be carried out with the participation of all the combat-ready aircraft, taking into account the duration of the flight (15 to 20 hours) under the condition that they return to air bases in the continental US.

Carrying out a repeat sortie should be considered possible only on D3. On D2 may be employed the aircraft put into service above the 70 percent of combat-ready ones accepted by the Americans in operational estimates, as well as the heavy bombers participating in shuttle operations.

Medium bomber aviation (B-47, B-58, Victor, and Vulcan aircraft) deployed in the continental US can be two-thirds employed on the first day, and that based on forward air bases, completely.

Combat actions can be conducted on D2 employing one-third of the forces based in the continental US and employing repeat sorties of medium bombers from forward air bases.

It is quite probable that combat actions on D3 will be carried out by means of repeat sorties of aircraft that have returned after the initial strike to the air bases of the continental US, and partly by employing aircraft remaining ^{50X1-HUM} forward air bases.

Thus, in the course of a three-day nuclear offensive, heavy bomber aviation is capable of carrying out up to two sorties, and

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medium bomber aviation, up to 2.5 to three sorties. It is presumed that 20 percent of the aircraft participating in the operations will be used for radar support.

Acquiring ever-growing importance in the support of air operations are the satellite systems. Among them are reconnaissance satellites (Samos), navigational (Transit), weather (Tiros), communications (Courier and Echo), superlong-range missile detection (Midas), and geodesic (Anik and Hector).

Among the other operations planned in a nuclear offensive, a large place is set aside for operations of missile submarines. The objective of such operations will be destruction of the nuclear means of our navy. The main tasks of these submarines are the destruction of missile bases, naval bases, bases of nuclear weapons submarines, nuclear weapons depots, airfields of naval aviation, and shipbuilding yards and aircraft construction plants.

A characteristic feature of the operations of missile submarines consists in the fact that the preparation to carry them out requires more time than for stationary missile means. The conduct of such operations is involved primarily with the necessity for the arrival of the submarines in the initial areas of combat actions. True, for purposes of achieving greater secrecy of this arrival, the US command intends to constantly keep over one-half of the missile submarines at sea near their designated fire positions. Organizationally, in the near future the operations of these submarines are planned to be conducted by squadrons with a strength of nine submarines each.

In calculations of the combat capabilities of missile submarines, allowance is made for the rather considerable probable error of the Polaris missiles, which is as much as 2.5 kilometers. Also having an effect on their launch are the speed of the submarine, the depth of its underwater position, and the degree of roughness of the sea. Therefore, it is to be expected that each submarine, having 16 missiles, will receive four or five targets apiece when accomplishing combat tasks in an operation.

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Considered one of the most important and difficult problems in conducting operations of missile submarines is controlling them and coordinating their actions with other aerospace means. According to existing views, when delivering strikes with missiles, submarines must operate singly at a definite distance from one another. Therefore, control must also be handled for each submarine separately. All this requires dependable two-way communications. Their first long-range cruises showed the inadequate reliability of control of the submarines by the network of existing long-wave radio stations. To solve this problem powerful new types of radio stations are now being developed that permit establishing high-speed teleprinter communications.

The beginning of operations for delivering nuclear strikes with Polaris missiles is planned to be closely tied in with the launch of intercontinental ballistic missiles.

In the nuclear offensive plans, a definite place is allocated to operations of carrier strike forces. The effectiveness of these operations is determined by the high readiness of the carrier strike large units. The objective of operations of carrier strike large units is the destruction of the nuclear means of the opposing side in the zones of the strategic rear adjacent to the theater of military operations and in the theaters of military operations themselves.

The main targets for the delivery aircraft of carrier-based aviation are submarines and ships equipped with nuclear weapons located in naval bases and at sea, airfields of the long range aviation and front aviation, and missile launchers and depots of nuclear warheads and mine weapons.

It is planned that the operations of carrier strike forces will be coordinated with the operations of strategic and tactical aviation for the purpose of building up their efforts in accomplishing tasks to gain aerospace superiority.

It is necessary to note that the US and British commands are particularly counting on the conduct of operations by carrier strike large units, considering these forces the most survivable by virtue of their mobility. The basic combat element participating in an operation is the carrier strike group. The

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distance between two such groups forming a carrier strike large unit may vary within the limits of 50 to 100 kilometers. After the sortie of the delivery aircraft against the targets, the aircraft carriers, maneuvering in a specified area, change their positions. The operations of carrier-based aviation are planned to be conducted with a large number of small groups and single aircraft.

The US and British commands plan to keep the main groupings for conducting operations of carrier strike large units in the eastern part of the Atlantic, in the Mediterranean Sea, and in the Far East.

Operations of tactical aviation and operational cruise missiles (Mace and Matador) form the basis of a nuclear offensive in theaters of war and theaters of military operations.

The objective of such operations is to gain nuclear and air superiority in the theater and guarantee the offensive character of combat actions for the troops deployed here. The main targets of the delivery of strikes of tactical aviation in a theater of military operations will be front missiles, airfields of front aviation, nuclear warhead depots, radar centers and troop control centers, and groupings of troops, especially tank formations.

The main requirements placed upon the actions of the tactical air forces are that they begin suddenly, have the character of massed strikes, and ensure the destruction, first of all, of enemy nuclear means in the theater of military operations.

In the interests of ensuring the suddenness of the initial strike, the crews of the delivery aircraft of tactical aviation are previously targeted against specified enemy targets in the theater of military operations which are planned to be destroyed upon the declaration of "R"-hour* without a preliminary final reconnaissance.

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*The signal upon which nuclear weapons are employed in a theater of war by the US Commander-in-Chief.

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As the experience of the large exercises of recent years of the allied air forces of NATO shows, the actions of tactical aviation will be characterized by high intensity which may manifest itself in up to three sorties per aircraft in the first 24 hours, up to two sorties in the second 24 hours, and up to one and a half sorties in the third.

For the purpose of delivering massed nuclear strikes, operations of the tactical air forces are planned to be conducted with a large number of small groups and individual aircraft operating simultaneously on a wide front and to a great depth in conjunction with salvo and individual launches of cruise missiles. Characteristic of the actions of these means will be flights at maximally low and maximally high altitudes for the purpose of paralyzing the efforts of the air defense.

In operations of the tactical air forces, the US command plans extensive maneuver of forces and means from one operational-strategic axis to another, as well as cooperation with the various branches of the armed forces in the theater of war, in particular with the aerospace forces of the naval forces of the theater of military operations. Besides that, the American command also plans cooperation with the strategic aerospace forces.

Having examined several characteristic features of the operations of aerospace forces in the first days of the initial period of war, it is necessary to dwell on the question of coordination of the actions of aerospace forces, in particular on the sequence of their commitment to combat actions.

What are the requirements placed upon aerospace operations? Above all, they must be sudden and interconnected and ensure the fulfilment of the overall strategic concept of the nuclear offensive. "The basic US strategy," declared US Air Force Chief of Staff, General LeMay, "is a sudden strike with all available forces and means. The US must deliver such a strike first." The absence of exercises which would simultaneously involve all available aerospace forces and show the sequence of their commitment to a nuclear offensive, deprives us of the opportunity of referring to the experience of them.

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In the military theoretical literature of the US and Great Britain, this question is treated only in a general way. For instance, the American military writer R. Hubler wrote in one of his books, "The first wave is made up of powerful supersonic intercontinental missiles, after which follow supersonic manned aircraft; after this subsonic cruise missiles and manned aircraft will go into action; then the attack will be renewed with the employment of ballistic missiles, followed by a second wave of supersonic bombers, etc., until all our might is utilized."*

A similar point of view was also expressed by former US Air Force Chief of Staff, General White. "The raids of our manned bombers," he declared, "may be preceded by the strikes of our missiles on enemy targets."**

As we see it, what is common to the statements quoted is that the strikes of intercontinental ballistic missiles and manned strategic bombers mutually complement each other, with missiles being the first to act against the targets. On this point there is no doubt. However, this by no means indicates that the intercontinental ballistic missiles, medium-range missiles, strategic aviation, and aerospace forces of the theater of military operations will have the same "R"-hour. The tactical-technical specifications of these means are completely different. Thus, whereas to cover the distance from the US to targets located in the territories of the countries of the socialist camp requires six to nine hours for strategic aviation, for intercontinental missiles it is only a total of 25 to 30 minutes.

In endeavoring to achieve the suddenness of an initial strike of maximum possible yield, the US and British commands, in our opinion, are at the present time going to concentrate attention on ensuring the commitment of the forces of strategic aviation as the most numerous delivery means of nuclear weapons, without allowing long operational pauses between the initial strike of the missiles and the initial strike of the aircraft. The view exists that a massed take-off of bombers may be detected mainly by the radiotechnical means of the air defense of the countries of the socialist camp, i.e., at the limit line of long-range radar detection. Therefore, the flight time to this

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*R. Hubler, Strategic Air Command, New York, 1958, p. 152

**Air Force, September 1959.

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limit line may be exploited by the US command to reduce operational pauses. This thesis is confirmed by the experience of the combat training of the US Strategic Air Command.

In the American press it has been mentioned that upon a signal of alert after suspicious objects are noted on the radar screens, the bombers of the Strategic Air Command take off and head towards targets located on the territory of the Soviet Union. For four hours and 20 minutes they are under so-called positive control. If in this time the crew does not receive the final order to continue the fulfilment of the assigned task, the bombers turn back at the moment when there are two hours of flying time left to the Soviet border.

Thus, the problem of approaching the strike targets without going into the zone of long-range radar detection is being worked out.

A schematic diagram of the sequence of the commitment of aerospace forces in a nuclear offensive when operating according to the first variant may be presented in the following form (see diagram) [diagram missing].

From the variant of the commitment of aerospace forces to combat actions being considered, it follows that the strategic aviation is put into the air first. The take-off of the strategic air units will evidently be made to depend on the length of their flight routes to the limit line of long-range radar detection of the air defense of the countries of the socialist camp. After the take-off of the strategic air units will follow the take-off of carrier-based aviation; and upon its approach to the limit line of long-range detection, the intercontinental ballistic missiles and the medium-range ballistic missiles will enter into combat actions, and then the aviation and missile means of the theaters of military operations.

In the future, when the role of strategic missiles in the system of the armed forces of the US and NATO has changed and they become the basic delivery vehicles of nuclear weapons, the sequence of the commitment to action of all the means of aerospace forces will also be different. Strategic aviation will cease to have a decisive influence on the operational disposition

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of aerospace forces in a nuclear offensive and missiles will make up the main forces of the first wave; the aircraft of strategic aviation will enter into the composition of the second and subsequent waves. The commitment of forces in a global nuclear offensive can be presented in one of its variants in the following form:

- first wave: intercontinental ballistic missiles, medium-range and operational-tactical missiles;
- second wave: strategic aviation from forward air bases, tactical and carrier-based aviation of the theaters of military operations;
- third wave: strategic aviation from the air bases of the continental US.

The combat alert, i.e., the beginning of combat actions under the conditions being considered, can be declared for all units and large units of aerospace forces simultaneously; but the strikes will be delivered with a break in time depending on the tactical-technical specifications of the means of attack and their distance from the strike targets, thereby constituting separate waves of a single nuclear offensive operation.

Consequently, the contemporary development of the military science and military art of the US is characterized by the persistent endeavor to expand the scale of modern war, to bring new means of combat into its conduct, and to develop the theory of employing them.

On the basis of an appraisal of the arsenal of aerospace weapons and the plans for their development in the near future, one can come to the conclusion that up to 1964-1965 air and missile operations will prevail, then missile operations will become dominant. Subsequently, when missile-carrying space bombardment systems become the main strategic means of combat, the operations of these means will have the nature of space operations.

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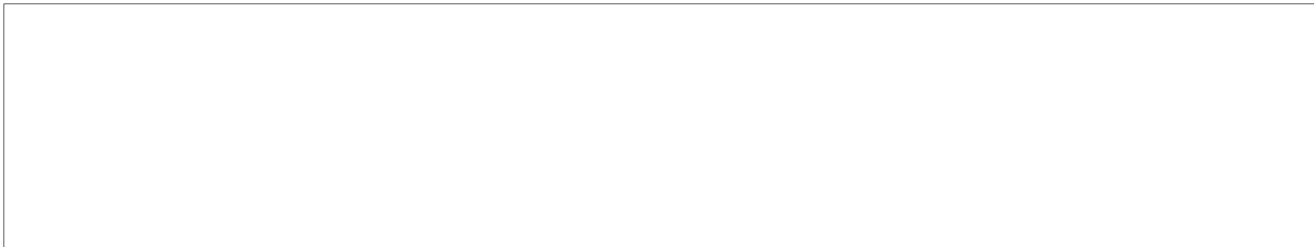
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This trend in the development of aerospace forces and the military art of the US and Great Britain must be studied from all aspects and be taken into consideration by us for the purposes of successfully accomplishing the tasks of defending our country and the whole socialist camp.

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